

## CLAIMS

1. Go-cart, comprising steering means (8; 108), suitable for directing said go-cart (1) along a given trajectory, and speed control means (25, 43), suitable for modifying the running speed of said go-cart (1), characterised in that, said speed control means (25, 43) is so configured as to interact with said steering means (8; 108).
2. Go-cart according to claim 1, wherein said steering means (8; 108) comprises steering wheel means (44; 44'; 144) and steering column means (12; 112) between which joint means is placed (11; 111) that is suitable for enabling said steering wheel means (44; 44'; 144) to be positioned according to a tilt that is substantially independent of said steering column means (12; 112).
3. Go-cart provided with steering means (8; 108) comprising steering column means (12; 112) and steering wheel means (44; 44'; 144) by means of which a driver can set a trajectory for said go-cart (1), characterised in that, between said steering wheel means (44; 44'; 144) and said steering column means (12; 112) joint means is placed (11; 111), said joint means (11; 111) being suitable for enabling said steering wheel means (44; 44'; 144) to be positioned according to a tilt that is substantially independent of said steering column means (12; 112).
4. Go-cart according to claim 3, and further comprising speed control means (25, 43), suitable for modifying the running speed of said go-cart (1) and so configured as to interact with said steering means (8; 108).
5. Go-cart according to claim 1, or 2, or 4, wherein said speed control means (25, 43) comprises braking means (25) that can be actuated when said steering means (8; 108) is moved in a first direction and acceleration means (43) that can be actuated when said steering means (8; 108) is moved in a second direction opposite said first direction.

6. Go-cart according to claim 5, as appended to claim 2 or 4, wherein, when said steering wheel means (44; 44'; 144) is displaced towards a driver it activates said acceleration means (43), and vice versa.
- 5 7. Go-cart according to claim 5, as appended to claim 2 or 4, or according to claim 6, wherein said acceleration means (43) comprises cable means (16) actuatable through said steering means (8; 108) and cooperating with valve means (195) suitable for intervening on a fuel entering engine means of said go-cart (1).
- 10 8. Go-cart according to claim 5, as appended to claim 2 or 4, or according to claim 6, wherein said acceleration means (43) comprises position sensor means (189) arranged for detecting an axial position of said steering means (8; 108).
- 15 9. Go-cart according to claim 8, and further comprising processing card means (193) arranged for actuating valve means (195) suitable for intervening on a fuel entering engine means of said go-cart (1), said processing card means (193) acting on said valve means (195) according to said axial position.
- 20 10. Go-cart according to claim 8, or 9, wherein said position sensor means (189) is selected from a group comprising: encoder means, potentiometer means.
- 25 11. Go-cart according to any of claims 8 to 10, wherein said position sensor means (189) is associated with gear means (185, 188, 190) that can be actuated by said steering means (8; 108).
- 30 12. Go-cart according to any of claims 5 to 10, as claim 5 is appended to claim 2 or 4, wherein, when said steering wheel means (44; 44'; 144) is moved away from a driver, said steering wheel means (44; 44'; 144) activates said braking means (25), and vice versa.

13. Go-cart according to any of claims 5 to 12, as claim 5 is appended to claim 2 or 4, wherein said braking means (25) comprises actuating rod means (17; 117) cooperating with pump means (20) suitable for circulate a fluid in a braking circuit.
14. Go-cart according to claim 13, wherein said actuating rod means (17; 117) is slidably coupled with stem means (18).
15. Go-cart according to claim 14, wherein said stem means (18) comprises abutting means (61) arranged for enabling said actuating rod means (17; 117) to move said stem means (18) only when said actuating rod means (17; 117) moves in a preset direction (F2).
16. Go-cart according to claim 14, or 15, wherein on said stem means (18) lever means (19) is hinged, said lever means (19) interacting with piston means of said pump means (20).
17. Go-cart according to any of claims 13 to 16, and further comprising support means (27) for supporting said pump means (20), said support means (27) being provided with a support plane (29) suitable for receiving said pump means (20) resting on said support plane (29), in order to maintain said pump means (20) in a position that is substantially parallel to a surface on which said go-cart (1) moves.
18. Go-cart according to claim 17, wherein said support means (27) comprises an anchor wall (30), to which said pump means (20) can be fixed.
19. Go-cart according to claim 17, or 18, wherein said support means (27) comprises fixing means (35, 36) suitable for allowing said support means (27) to be fixed to a structural element (2) of said go-cart (1).
20. Go-cart according to claim 19, wherein said fixing means (35, 36) comprises arm means (35) provided with clamp

means (36) that can be fixed to said structural element (2).

21. Go-cart according to any of claims 17 to 20, wherein said support means (27) comprises at least one stiffening member (37) suitable for increasing the bending and/or torsional stiffness of said support means (27).
22. Go-cart according to any of claims 5 to 21, wherein said braking means (25) and said acceleration means (43) are connected with movable member means (9; 48) connected with said steering wheel means (44, 44', 144).
23. Go-cart according to claim 22, as appended to one of claims 13 to 21 and as claim 13 is appended to claim 7, wherein said movable member means (9; 48) is arranged for actuating said cable means (16) and said actuating rod means (17; 117).
24. Go-cart according to claim 22, or 23, wherein said movable member means (9; 48) comprises sleeve means (9) axially movable along steering shaft means (10).
25. Go-cart according to claim 22, or 23, wherein said speed control means (25, 43) further comprises guide means arranged for guiding said movable member means (9; 48) together with shaft means (10'; 10a; 10b) fixed to said steering wheel means (44; 44'; 144), at the same time preventing rotation between said movable member means (9; 48) and said shaft means (10'; 10a; 10b).
26. Go-cart according to claim 25, wherein said guide means comprises grooved surface means placed between said movable member means (9; 48) and said shaft means (10'; 10a; 10b).
27. Go-cart according to claim 25, or 26, wherein said guide means comprises articulated quadrilateral means (40', 47a, 47b, 48) that can be actuated by said steering means (8; 108).

28. Go-cart according to claim 27, wherein said articulated quadrilateral means comprises articulated parallelogram means (40', 47a, 47b, 48).
- 5 29. Go-cart according to claim 27, or 28, wherein said articulated quadrilateral means comprises first rocker arm means (47a) and second rocker arm means (47b) arranged for connecting said movable member means (48) to a fixed member (40') of said go-cart (1).
- 10 30. Go-cart according to any of claims 27 to 29, wherein said articulated quadrilateral means comprises first articulated quadrilateral means and second articulated quadrilateral means arranged on opposite sides of said movable member means (9; 48).
- 15 31. Go-cart according to any of claims 27 to 30, wherein said shaft means (10'; 10a; 10b) is connected by said joint means (11; 111) to a first end zone of said steering column means (12; 112).
- 20 32. Go-cart according to claim 31, wherein said steering column means (12; 112) comprises a second end zone connected to chassis means (2, 28) of said go-cart (1) by means of articulated joint means (57), said articulated joint means (57) being arranged for enabling said second end zone to move in relation to said chassis means (2, 28) when said articulated quadrilateral means (40', 47a, 47b, 25 48) actuates said shaft means (10'; 10a; 10b).
- 30 33. Go-cart according to claim 31, or 32, and further comprising further articulated joint means (58) placed between said steering column means (12) and respective control means for controlling the steering of each wheel of said go-cart.
34. Go-cart according to any of claims 5 to 33, as claim 5 is appended to claim 2, or 4, and further comprising manual actuating means (67) arranged for actuating said

acceleration means (43) without translating said steering wheel means (44; 44'; 144).

35. Go-cart according to claim 34, as appended to claim 7, wherein said manual actuating means comprises further lever means (67) mounted on said steering wheel means (44; 44'; 144) and interacting with an extension (70) of said cable means (16).
36. Go-cart according to claim 35, wherein said further lever means (67) is so configured as to be capable of oscillating around a fulcrum to exert traction on said cable means (16).
37. Go-cart according to any of claims 2 to 36, and further comprising quick connector means (62) arranged for enabling said steering wheel means (44; 44'; 144) to be detached from, and attached to, column means (10; 10a; 10b) of said go-cart means (1).
38. Go-cart according to claim 37, wherein said quick connector means (62) is provided with protruding means (63) suitable for shapingly coupling with seat means (64) made in said column means (10; 10a; 10b).
39. Go-cart according to claim 37, or 38, wherein said steering wheel means (44; 44'; 144) is provided with a tubular end (66) suitable for receiving said column means (10; 10a; 10b), said tubular end (66) being provided with hole means (65) wherein said quick connector means (62) is inserted to lock said steering wheel means (44; 44'; 144) on said column means (10; 10a; 10b).
40. Go-cart according to any of claims 37 to 39, as claim 37 is appended to one of claims 25 to 33, wherein said column means (10; 10a; 10b) coincides with said shaft means (10'; 10a; 10b).
41. Go-cart according to any of the preceding claims, and further comprising hydraulic drive means (72) arranged for

hydraulically modifying the position of wheels (3) of said go-cart (1).

- 5 42. Go-cart according to any of the preceding claims, and further comprising safety sensor means (196) arranged for detecting any obstacles near said go-cart (1) and for preventing said go-cart (1) from accelerating.
- 10 43. Go-cart comprising steering means (8; 108) through which a driver can set a trajectory of said go-cart (1), said steering means (8; 108) comprising control means (72) arranged for modifying the position of wheels (3) of said go-cart (1) according to a command from said driver, characterised in that, said control means comprises hydraulic drive means (72) arranged for hydraulically modifying said position.
- 15 44. Go-cart according to claim 43, wherein said hydraulic drive means comprises hydraulic drive box means (72) fed by a pressurised fluid through pump means (74).
- 20 45. Go-cart according to claim 44, wherein said pump means (74) is moved by means of driving shaft means of said go-cart (1).
46. Go-cart according to claim 44, or 45, wherein said hydraulic drive box means (72) is connected with steering column means (12) of said go-cart (1) by means of a joint (71).
- 25 47. Go-cart according to any of claims 44 to 46, and further comprising articulated-joint elements (58) placed between said hydraulic drive box means (72) and respective tie-rod means arranged for steering wheels (3) of said go-cart (1).
- 30 48. Go-cart according to any of claims 43 to 47, and further comprising safety sensor means (196) arranged for detecting any obstacles near said go-cart (1) and for preventing said go-cart (1) from accelerating.

49. Apparatus for controlling the run of a vehicle (1), comprising steering means (8) suitable for directing said vehicle (1) along a given trajectory, and speed control means (25, 43) suitable for modifying the running speed of said vehicle (1), characterised in that, said speed control means (25, 43) comprises articulated quadrilateral means (40', 47a, 47b, 48) actuatable by said steering means (8).
50. Apparatus according to claim 49, wherein said articulated quadrilateral means comprises articulated parallelogram means (40', 47a, 47b, 48).
51. Apparatus according to claim 49, or 50, wherein said articulated quadrilateral means (40', 47a, 47b, 48) comprises movable member means (48) connected to fixed member means (40') through first rocker arm means (47a) and second rocker arm means (47b), said movable member means (48) being associated with shaft means (10'; 10a; 10b) connected to steering wheel means (44; 44') of said steering means (8).
52. Apparatus according to claim 51, wherein said articulated quadrilateral means (40', 47a, 47b, 48) comprises first articulated quadrilateral means and second articulated quadrilateral means, arranged on opposite sides of said movable member means (48).
53. Apparatus according to claim 51, or 52, wherein said shaft means (10'; 10a; 10b) is coupled with said movable member means (48) in such a way as to enable the relative rotation and substantially prevent the relative translation.
54. Apparatus according to any of claims 51 to 53, and further comprising steering column means (12) having a first end zone connected to said shaft means (10'; 10a; 10b) through joint means (11), and a second end zone connected to chassis means (2, 28) of said vehicle.



55. Apparatus according to claim 54, wherein between said second end zone and said chassis means (2, 28) articulated joint means (57) is provided, said articulated joint means (57) being arranged for enabling said second end zone to move in relation to said chassis means (2, 28) when said articulated quadrilateral means (40', 47a, 47b, 48) actuates said shaft means (10'; 10a; 10b).
56. Apparatus according to claim 54, or 55, and further comprising further articulated joint means (58) placed between said steering column means (12) and respective control means for controlling the steering of each wheel of said vehicle.
57. Apparatus according to any of claims 51 to 56, wherein to said movable member means (48) braking means (25) and acceleration means (43) are connected, said braking means (25) being actuatable when said steering means (8) is moved in a first direction and said acceleration means (43) being actuatable when said steering means (8) is moved in a second direction opposite said first direction.
58. Apparatus according to claim 57, wherein said acceleration means (43) comprises cable means (16) actuatable by said movable member means (48) and cooperating with valve means (195) suitable for intervening on a fuel entering engine means of said vehicle.
59. Apparatus according to claim 57, wherein said acceleration means (43) comprises position sensor means (189) arranged for detecting the axial position of said shaft means (10'; 10a; 10b).
60. Apparatus according to claim 59, wherein said position sensor means (189) is selected from a group comprising: encoder means, potentiometer means.
61. Apparatus according to claim 59, or 60, wherein said position sensor means (189) is associated with gear means

(185, 188, 190) that can be actuated by said steering means (8).

- 5 62. Apparatus according to any of claims 57 to 61, wherein said braking means (25) comprises actuating rod means (17) cooperating with pump means (20) suitable for circulating a fluid inside a braking circuit.
63. Apparatus according to claim 62, wherein said actuating rod means (17) is slidably coupled with stem means (18).
- 10 64. Apparatus according to claim 63, wherein said stem means (18) comprises abutting means (61) arranged for enabling said actuating rod means (17) to move said stem means (18) only when said rod means (17) moves in a preset direction (F2).
- 15 65. Apparatus according to claim 63, or 64, wherein a lever means (19) interacting with piston means of said pump means (20) is hinged on said stem means (18).
- 20 66. Apparatus according to any of claims 62 to 65, and further comprising support means (27) for supporting said pump means (20), said support means (27) being provided with a support plane (29) suitable for receiving said pump means (20) resting on said support plane (29) to maintain said pump means (20) in a substantially horizontal position.
- 25 67. Apparatus according to claim 66, wherein said support means (27) comprises arm means (35) provided with clamp means (36) arranged for being fixed to a structural member (2) of said vehicle.
- 30 68. Apparatus for controlling the run of a vehicle (1), comprising steering means (8; 108), suitable for allowing said vehicle (1) to be directed along a given trajectory, and speed control means (25, 43), suitable for modifying the running speed of said vehicle (1), characterised in that, said speed control means (25, 43) comprises first shaft means (109) slidably coupled with second shaft means

- (110) and actuatable by means of said steering means (108).
69. Apparatus according to claim 68, wherein said first shaft means (109) is telescopically coupled with said second shaft means (110).
70. Apparatus according to claim 68, or 69, wherein any relative rotation between said first shaft means (109) and said second shaft means (110) is substantially prevented.
71. Apparatus according to any of claims 68 to 70, wherein said first shaft means (109) is fixed to steering wheel means (144) of said steering means (108).
72. Apparatus according to any of claims 68 to 71, wherein said first shaft means (109) comprises a tubular end portion (180) suitable for shapingly coupling with said second shaft means (110).
73. Apparatus according to claim 72, wherein said first shaft means (109) is associated with said tubular end portion (180) by means of grooved surface means.
74. Apparatus according to any of claims 68 to 73, wherein said first shaft means (109) is rotatably arranged inside ring means (113).
75. Apparatus according to claim 74, wherein said ring means (115) is so configured as to be capable of being translated together with said first shaft means (109), when a driver of said vehicle (1) moves said steering means (108) in a first direction (F2).
76. Apparatus according to claim 74, or 75, wherein said ring means (113) is connected to actuating rod means (117) cooperating with pump means (20) suitable for circulating a fluid inside a braking circuit.
77. Apparatus according to claim 76, wherein said actuating rod means (17) is slidably coupled with stem means (18).
78. Apparatus according to claim 77, as claim 76 is appended to claim 75, wherein said stem means (18) comprises

abutting means (61) arranged for enabling said actuating rod means (17) to move said stem means (18) only when said actuating rod means (17) moves in said first direction (F2).

- 5 79. Apparatus according to claim 77, or 78, wherein lever means (19) interacting with piston means of said pump means (20) is hinged on said stem means (18).
80. Apparatus according to any of claims 68 to 79, wherein said first shaft means (109) is housed inside hollow support means (183) intended for being arranged in a fixed position on said vehicle (1).
- 10 81. Apparatus according to claim 80, and further comprising acceleration means (43) actuatable by said first shaft means (109) when said first shaft means (109) interacts with said hollow support means (183).
- 15 82. Apparatus according to claim 81, wherein said acceleration means (43) comprises position sensor means (189) arranged for detecting an axial position of said steering means (8; 108).
- 20 83. Apparatus according to claim 82, and further comprising processing card means (193) arranged for actuating valve means (195) suitable for intervening on a fuel entering engine means of said go-cart (1), said processing card means (193) acting on said valve means (195) according to said axial position.
- 25 84. Apparatus according to claim 82, or 83, wherein said position sensor means (189) is selected from a group comprising: encoder means, potentiometer means.
- 30 85. Apparatus according to any of claims 82 to 84, wherein said position sensor means (189) is associated with gear wheel means (185, 188) actuatable by rack means (190) connected with said first shaft means (109).
86. Apparatus according to claim 85, and further comprising microswitch means (192) interacting with said rack means

(190) in a preset reference position of said rack means (190).

87. Apparatus according to any of claims 68 to 86, and further comprising a guide device (186; 187) arranged for keeping  
5 said first shaft means (109) guided in its movement in relation to said second shaft means (110).

88. Apparatus according to claim 87, as appended to one of claims 80 to 86, wherein said guide device comprises guide wheel means (186) fixed to said hollow support means (183)  
10 and interacting with guide bar means (187) associated with said first shaft means (187).

89. Apparatus according to any of claims 68 to 88, wherein said second shaft means (110) can be coupled with steering column means (112) through joint means (111).

15 90. Kit for a vehicle (1), comprising braking control means suitable for actuating braking means (25) of said vehicle (1), and acceleration control means suitable for actuating acceleration means (43) of said vehicle (1), said braking control means and said acceleration control means being so  
20 configurable as to interact with steering means (8; 108) of said vehicle (1).

91. Kit according to claim 90, and further comprising joint means (11; 111), suitable for being placed between steering column means (12; 112) and steering wheel means  
25 (44; 44'; 144) of said steering means (8; 108), in such a way as to enable said steering wheel means to be positioned according to a tilt that is substantially independent of said steering column means (12; 112).

92. Kit according to claim 90, or 91, wherein said  
30 acceleration control means comprises cable means (16) suitable for cooperating with valve means (195), in such a way as to intervene on fuel entering into engine means of said vehicle (1).

93. Kit according to claim 90, or 91, wherein said acceleration control means comprises position sensor means (189) arranged for detecting an axial position of said steering means (8; 108).
- 5 94. Kit according to claim 93, and further comprising processing card means (193) arranged for actuating valve means (195) suitable for intervening on a fuel entering engine means of said vehicle (1), according to said axial position.
- 10 95. Kit according to claim 93, or 94, wherein said position sensor means (189) is selected from a group comprising: encoder means, potentiometer means.
96. Kit according to any of claims 93 to 95, and further comprising gear means (185, 188, 190) associated with said position sensor means (189) and actuatable by said steering means (8; 108).
- 15 97. Kit according to claim 96, wherein said gear means (185, 188, 190) comprises gear wheel means (185, 188) associated with said position sensor means (189) and rack means (190) fixed to said steering means (8; 108) and arranged for actuating said gear wheel means (185, 188).
- 20 98. Kit according to any of claims 90 to 97, wherein said braking control means comprises actuating rod means (17; 117) cooperating with pump means (20) suitable for supplying a fluid in a brake circuit of said vehicle (1).
- 25 99. Kit according to claim 98, wherein said braking control means (15, 17, 18, 19) comprises stem means (18) suitable for being slidably coupled with said actuating rod means (17; 117).
- 30 100. Kit according to claim 99, wherein said stem means (18) comprises abutting means (61) arranged for enabling said actuating rod means (17; 117) to move said stem means (18) only when said actuating rod means (17; 117) moves in a first direction (F2).

101. Kit according to claim 99, or 100, wherein said braking control means comprises lever means (19) suitable for being hinged on said stem means (18) in such a way as to interact with piston means of said pump means (20).
- 5 102. Kit according to any of claims 98 to 101, and further comprising support means (27) suitable for supporting said pump means (20).
103. Kit according to claim 102, wherein said support means (27) comprises a support plane (29) for supporting said  
10 pump means (20), said support plane (29) being suitable for receiving said pump means (20) resting on said support plane (29) to maintain said pump means (20) in a position that is substantially parallel to a surface on which said vehicle means (1) moves.
- 15 104. Kit according to claim 102, or 103, wherein said support means comprises an anchor wall (30), to which said pump means (20) can be fixed.
105. Kit according to any of claims 102 to 104, wherein said support means (27) comprises fixing means (35, 36)  
20 suitable for enabling said support means (27) to be fixed to chassis means (2) of said vehicle (1).
106. Kit according to claim 105, wherein said fixing means (35, 36) comprises arm means (35) provided with clamp means (36) that can be fixed to said chassis means (2).
- 25 107. Kit according to any of claims 102 to 106, wherein said support means (27) comprises at least one stiffening element (37) suitable for increasing the bending and/or torsional stiffness of said support means (27).
- 30 108. Kit according to any of claims 90 to 107, and further comprising articulated quadrilateral means (40', 47a, 47b, 48) arranged for actuating said braking control means and said acceleration control means by acting on said steering means (8; 108).

109. Kit according to claim 108, wherein said articulated quadrilateral means comprises articulated parallelogram means (40', 47a, 47b, 48).
- 5 110. Kit according to claim 108, or 109, wherein said articulated quadrilateral means comprises first rocker arm means (47a) and second rocker arms means (47b) arranged for connecting to a fixed member (40') of said vehicle (1) movable member means (48) that can be associated to said steering means (8; 108).
- 10 111. Kit according to claim 110, wherein said articulated quadrilateral means comprises first articulated quadrilateral means and second articulated quadrilateral means arranged on opposite sides of said movable member means (48).
- 15 112. Kit according to claim 91, or according to any of claims 92 to 107, as appended to claim 91, and further comprising shaft means (10) suitable for being placed between said joint means (11; 111) and said steering wheel means (44; 44'; 144).
- 20 113. Kit according to claim 112, and further comprising sleeve means (9) axially movable along shaft means (10).
114. Kit according to claim 113, wherein said braking control means and said acceleration control means are connected with said sleeve means (9).
- 25 115. Kit according to claim 113, or 114, and further comprising sustaining means (40) suitable for supporting said sleeve means (9).
116. Kit according to any of claims 90 to 107, and further comprising first shaft means (109) suitable for being  
30 slidably coupled with second shaft means (110) of said vehicle (1) to actuate said braking control means and said acceleration control means.
117. Kit according to claim 116, wherein said first shaft means (109) is so configured as to be telescopically coupled



with said second shaft means (110) so that any relative rotation between said first shaft means (109) and said second shaft means (110) is substantially prevented.

- 5 118. Kit according to claim 117, wherein said first shaft means (109) is provided with a tubular end portion (180) suitable for shapingly coupling with said second shaft means (110).
- 10 119. Kit according to any of claims 116 to 118, and further comprising ring means (113) within which said first shaft means (109) is rotatably arranged.
- 15 120. Kit according to claim 119, wherein said ring means (113) is so configured as to be capable of translating together with said first shaft means (109), when a driver of said vehicle (1) moves said steering means (8; 108) in a first direction (F2).
- 20 121. Apparatus for controlling the run of a vehicle (1), comprising steering means (8; 108) provided with first steering column means (109) slidable in relation to second steering column means (110) to modify the speed of said vehicle (1), and further comprising position sensor means (196) suitable for detecting the axial position of said first steering column means (109) in relation to said second steering column means (110).
- 25 122. Apparatus according to claim 121, wherein said position sensor means (196) comprises encoder means.
123. Apparatus according to claim 122, wherein said encoder means is associated with gear wheel means movable in relation to rack means.
- 30 124. Apparatus according to claim 121, wherein said position sensor means (196) comprises reading means for reading an optic band.
125. Apparatus according to claim 121, wherein said position sensor means (196) comprises reading means for reading a magnetic band.

126. Apparatus according to any of claims 121 to 125, and further comprising processing card means (193), suitable for processing a signal coming from said position sensor means (196).